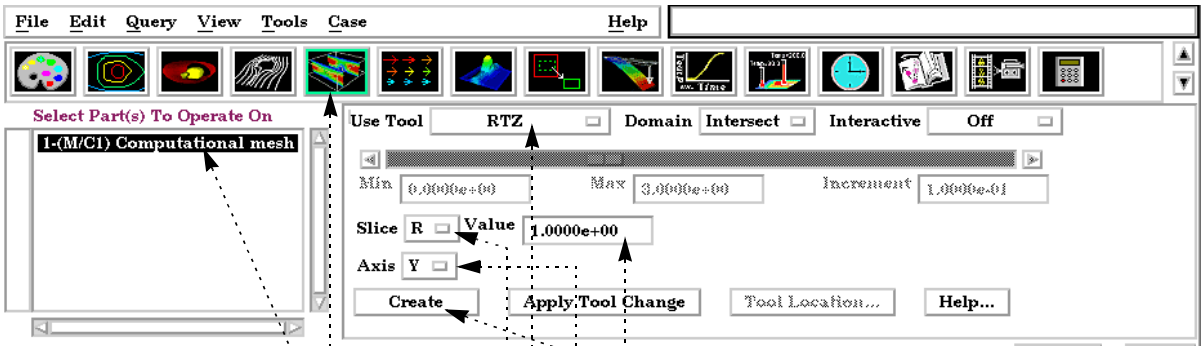
Introduction

An RTZ clip is a 1D or 2D slice through 2D or 3D meshes (structured or unstructured). The resulting clip is a 1D or 2D mesh slice where one of the dimensions (*e.g.* R,"radial component") is held constant (or fixed) while the other one or two dimensions (*e.g.* T, "theta component" and Z, "z axis component") vary in reference to the local frame of the mesh. RTZ clips can be interactively animated throughout the range of the fixed dimension by manipulating a slider. The minimum, maximum, and step size of the range of the interactive fixed dimension can be set by the user.

Basic Operation



1. Select the parent part.
2. Click the Clip icon.
3. Select RTZ from the Use Tool pulldown
4. Select the Axis that describes the cylindrical length.
5. Select the desired fixed dimension of the slice (R, T, or Z).
6. Enter the value for the slice (the value of R, T, or Z), and press return.
7. Click Create.

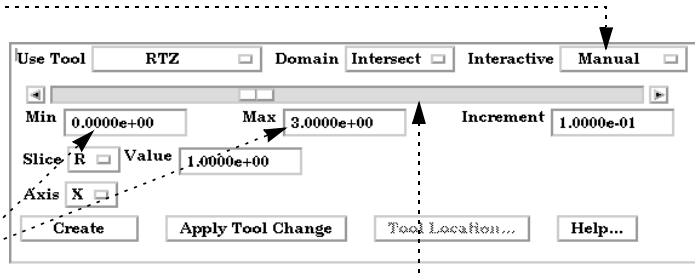
Note that you can change the fixed dimension of an RTZ clip at any time (with the Slice pulldown). If you change the numeric value, remember to press return for the change to take effect.

Advanced Usage

Interactive RTZ Clipping

You can interactively sweep through the range of the fixed dimension by adjusting a slider with the mouse.

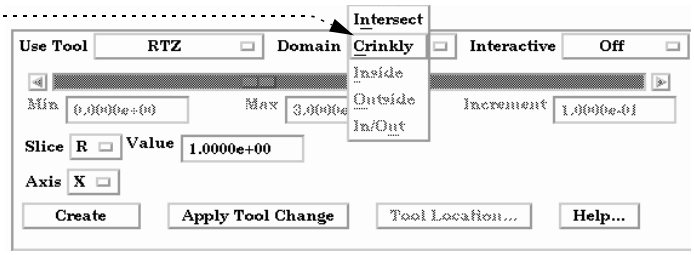
1. Double-click the desired RTZ clip part in the main parts list.
2. Change Interactive to Manual to enable sweeping.
3. If desired, enter values for the Min, Max, and Increment to override the defaults (remember to press return).
4. Adjust the slider with the mouse.



Crinkly RTZ Clipping

You can check the integrity of your mesh by clipping with a crinkly intersection. Specifying a crinkly domain results in a part composed of all the elements that intersect the mesh slice value. Crinkly clipping cannot be done interactively.

1. Change the Domain to Crinkly



Clipping Plane Animation

Although you can interactively sweep an RTZ clip through a mesh, it is sometimes desirable to have EnSight automatically calculate a series of RTZ clips for you. These can then be replayed (as fast as your graphics hardware will permit) using EnSight's Flipbook Animation facility. See **How To Create a Flipbook Animation** for more information.

Other Notes

Inside, Outside, and In/Out cutting are disabled for this clipping type because it has no meaning for T. And if you desire this effect for Z or R, you can use a plane clip or cylindrical clip instead.

See Also

Introduction to Part Creation
How To Create a Flipbook Animation

Other clips:
How to Create Clip Lines
How to Create Clip Planes
How to Create Quadric Clips
How to Create IJK Clips
How to Create XYZ Clips
How to Create Box Clips.

User Manual: **Clip Create/Update**